

What is claimed is:

1. A method of transmitting data frames over a data network, comprising a step
of transmitting a plural number of MAC (Media Access Control) data frames
5 with only a single PLCP (Physical Layer Control Procedure) overhead.
2. The method of claim 1, wherein said PLCP overhead comprises a PLCP
preamble and a PLCP header.
3. The method of claim 2, wherein said MAC data frames comprise a
concatenated MAC header indicating said plural number.
- 10 4. The method of claim 3, wherein said concatenated MAC header further
indicates a length of said plurality of MAC data frames.
5. The method of claim 4, further comprising a step of inserting said PLCP
preamble after transmission of some of said plurality of MAC data frames.
6. The method of claim 4, wherein said PLCP overhead is sent with a first one of
15 said plurality of MAC data frames.
7. The method of claim 2, wherein each of said plurality of MAC data frames
comprises a MAC header portion, a MAC frame body portion and a CRC
(Cyclic Redundancy Check) portion.
8. The method of claim 7, wherein said plurality of MAC data frames are
20 addressed to a common destination, said concatenated MAC header further
indicates said destination, and said MAC header portion in each data frame is
a compressed MAC header that does not include a portion indicating said
destination.
9. The method of claim 1, wherein said data network is a wireless data network.

10. The method of claim 9, wherein said wireless data network uses IEEE 802.11 protocol.
11. A frame structure of packet data for transmission over a data network, comprising:
 - 5 a plural number of MAC (Media Access Control) data frames; and
 - a PLCP (Physical Layer Control Procedure) overhead including a PLCP preamble and a PLCP header,
 - wherein only a single one of said PLCP overhead is provided to all
 - 10 said plurality of MAC data frames.
12. The frame structure of claim 11, wherein said single PLCP overhead is provided in front of a first one of said plurality of MAC data frames.
13. The frame structure of claim 12 wherein said MAC data frames comprise a concatenated MAC frame header indicating said plural number.
- 15 14. The frame structure of claim 13 wherein said concatenated MAC header further indicates a length of said plurality of MAC data frames.
15. The frame structure of claim 14 wherein said concatenated MAC header is located between said PLCP overhead and said first one of said plurality of MAC data frames.
- 20 16. The frame structure of claim 12 wherein each of said plurality of MAC data frames comprises a MAC header portion, a MAC frame body portion and a CRC (Cyclic Redundancy Check) portion.
17. The frame structure of claim 16 wherein said concatenated MAC header indicates a common destination of said plurality of MAC data frames, and said

MAC header portion in each of said data frames is a compressed MAC header that does not include a portion indicating said common destination.

18. The frame structure of claim 17 wherein said data network is a wireless data network.

5 19. The frame structure of claim 18 wherein said wireless data network uses IEEE 802.11 protocol.